

GEORGE ENGELMANN BOTANICAL NOTEBOOKS

*Pagination Note:
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page number, the page number displayed
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Lvs Ponderosa	Length of leaves	over
Badlands	4-5"	sheath 8-12" old
Little Missouri	6-7"	12" 3
Colombia	only less than 4-5	2-3
South F.	4-5-6	9-10 2-3
El Paso	5-9	8-9 2
St George Wash	6	
Anza	6	6-9 2-3
Dry Arroyo	6-7	
Douglas	7-5	
Calif. Bolle	7-90	12" 5-6"
Pine Creek 250	6	12
Mt. Pinos	5-7	2-4
Difflera	7-9	10-12
Jeffreyi	10	12-13
"	6	2-7
Henry Mtn	10-11	12-13

May 1878

leaves in Rocky Mts 4-6 or 7 sheath 8-12" ^{lvs} 2-4
& Anza

Calif usually long 6-10 in
or even 12

Amerts Rock, Mts 6-8 in
Calif 12-24

over



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bracts rough from bracts of leafbunches
bracts falling with the leaves or sometimes later
Rocky Mts. - short and 3 6¹⁰"-9"
Calif. cylind. 18¹¹"-24"

Albion, Iowa
June 5th, 1878
Dr. G. Engelmann
Dear Sir:

I send my paper to Bot. Gaz. and have
not heard from it yet but
probably will in a week^{30 24 8 32}
as I have written again
to McCulley making in-
quiries. Then I will inform
you. Yours truly
W. D. Butler

"P. lepto;" Boland 6047. right side of ♀ EVA
all other have ²²
erect spreading points

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12021
b40



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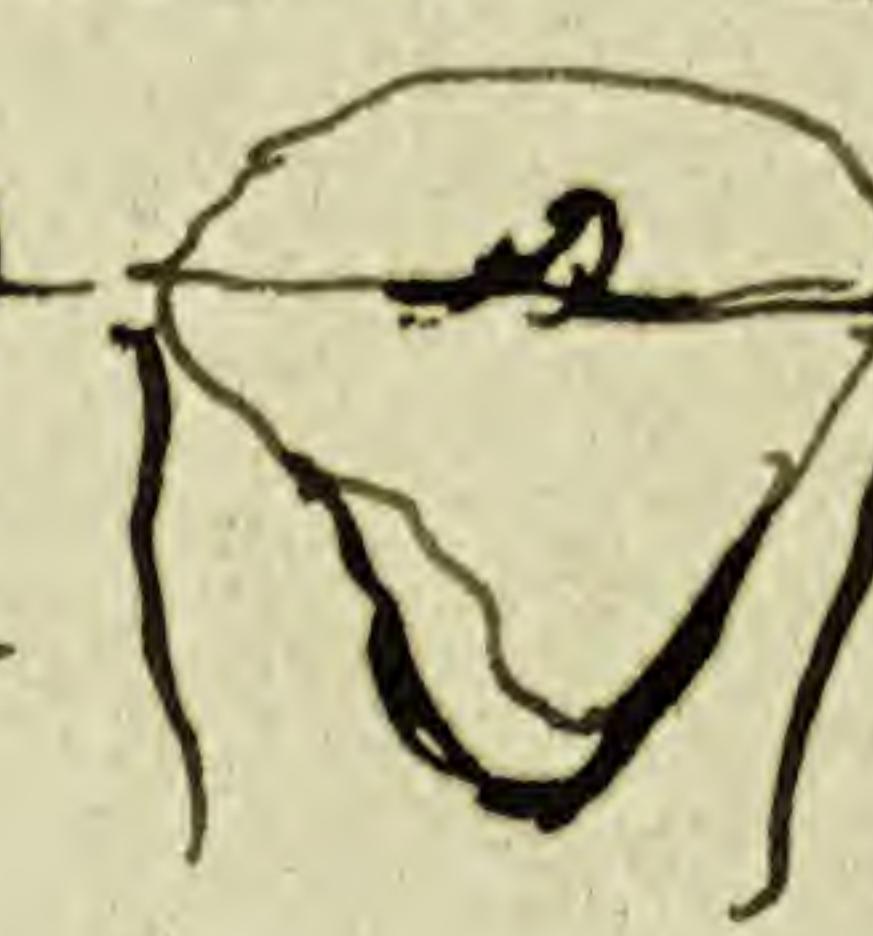
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March 3rd 1879

Examination of Cones of *Pin. ponderosa*

I ponderosa var. cones smaller, with short broad triangular apophyses, and pointed or rounded apex. Transverse ridge near the upper rounded end - cones 2-4 inches long

12 Cones from Colorado and Utah	$1\frac{3}{4}$ - $2\frac{1}{4}$ inches long
1 Cone from Oregon (Bendine)	$2\frac{3}{4}$
5 Cones from California	3 - 4



II ponderosa glauca macrocarpa (Jeffreyi)
Cones larger, with short broad apophyses, and thin, rounded apex; transverse ridge through the middle. cones 4-8 inches long.



California, Jeffreyi var.	$6\frac{1}{2}$ inches long
Rothrock 251	$4\frac{1}{2}$
" " "Ball pine" 216	$5\frac{1}{2}$
Parry in Donardi, sub nom. <i>deflexa</i>	$5\frac{1}{2}$
Jeffreyi 1914 Agnew. Dep.	4
New cult. five Hooker	4
Sierra Valley Lemmon 1879	3
Yreka Bolander	$3\frac{3}{4}$

$1\frac{6}{7}$ in. myself - 1879
 $7\frac{1}{2}$ in. Oregon Con. Agnew

Oregon E Hall 1871

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12050
Halle a/S., im Januar 1879.

P. P.

Die „Naturforschende Gesellschaft zu Halle“ begeht am 3. Juli dieses Jahres ihr hundertjähriges Stiftungsfest. Zur Feier dieses Tages beabsichtigt sie eine Festschrift herauszugeben, welche Abhandlungen aus dem Gebiete der Gesammten Naturwissenschaften enthalten soll. Indem der Unterzeichnete sich beeht, Ew. Hochwohlgeboren als Mitglied der Gesellschaft hiervon in Kenntniss zu setzen, und im Namen der einheimischen Mitglieder zur Theilnahme an der Säcularfeier ergebenst einzuladen, erlaubt er sich zugleich zu bemerken, dass literarische Beiträge für die Festschrift gern in Empfang genommen werden. Um jedoch den Umfang der letzteren rechtzeitig bestimmen zu können, ist als äusserster Termin für die Einsendung von Manuscripten der 20. April, von Tafeln dagegen der 1. März festgesetzt worden.

Der Schriftführer:

Dr. F. Marchand.

Jägerplatz 2.

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Pinus ponderosa

Colorado & Utah : bark $\frac{1}{2}$ - $1\frac{1}{2}$ inches thick

Sapwood 50 - 150 rings; wood reddish

California : bark $1\frac{1}{2}$ - 3 inches thick

Sapwood 200 rings



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Plans pondorum at Carson City
began to open the cones about Oct 6th
Bonneville.

At Laramie they were quite green yet
Sept 20th ^{were open and} but had lost their
seed Nov 30th though still adhering
to the branches.



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tle known.

NGSTONE, in some of his earlier
coveries of this great traveler.
graphical maps the picturesque
followed in Southern Russia,

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12052

cemember 7th, 1869.

d in this country. The Professor has been
with Dr. Livingstone in some of his earlier
ade in Chinese Tartary, Thibet, and among
public his ethnological and geographical
er delivered, have been received with great
New York journals speak in praise of his
will be so drafted as to bring them within the
s a rare intellectual treat.

FIFTY CENTS
- - -
ONE DOLLAR

Stores of
tree, and F. ROESTEIN,
at.



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Kew, Sept 1869
A. Jondrilla re-examined — seems to have shrubby epicales *W. S. S.*



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Q. No P. ponderosa is central Nevada. or is it
anywhere visible from R.R. in western Great
Basin. I saw after crossing the Rockies. on eastern
foot hills of Sierra Nevada. between Reno & Carson.
Nov 1878
Sargent



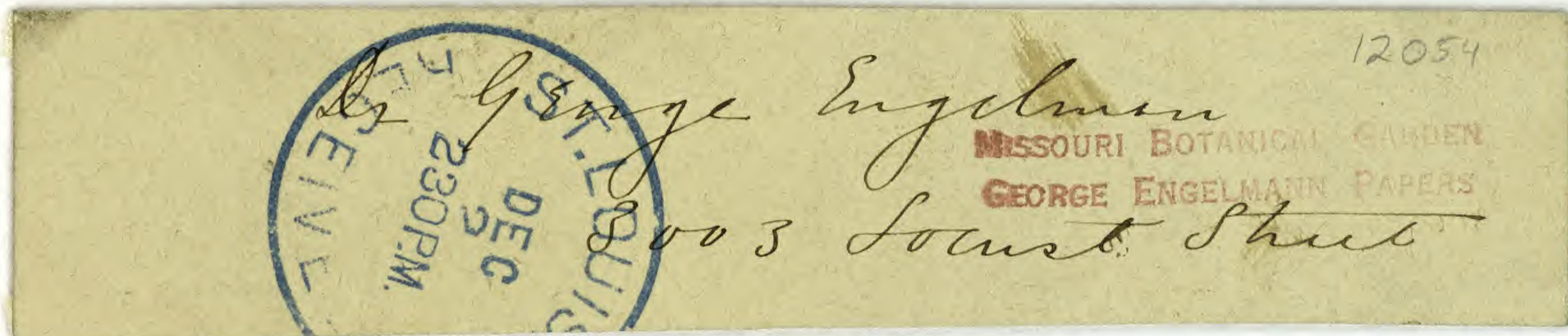
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May 1868

4. P. ponderosa, Dugl. Common throughout all
the lower valleys and less elevated localities, associated
with Abies. Douglasii & A. magnifica.
peeling & yellowish brown bark (Perry - 64)



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Rev. Dec 31
Ans Jan 10

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Davenport Iowa

Dec 28th 1861



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~~R. Dobb, California 1850 may be a~~ ^{100 Kew 1861 No 9} ~~concolor with Long Beards~~
~~10-12 and long, short 5' awns, - a spike 5 cent Long~~
~~with long lavender blackish bracts prorising from the base of awns~~



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An. Bot.

Herb Kew Sept 7 1869

a stout leaved *Centotis* all of John M. Harb. P. ingens?

1969 California Starwry

and:

740 Jeffrey, Siskyon Mountains, 7500' alt 43" marked by A. Murray:

"*P. murrayana* *P. contorta*?" I take for a stout leaved *centotis*
apical cones

[This is quoted by Poldove Food p. 379 for *murrayana*!
as the type of *murrayana*

437 Lobb, Sierra Nevada is the same.



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P. inops, *Silcha*, *Mertens* in
Ho Dray July 1869
P. contorta



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
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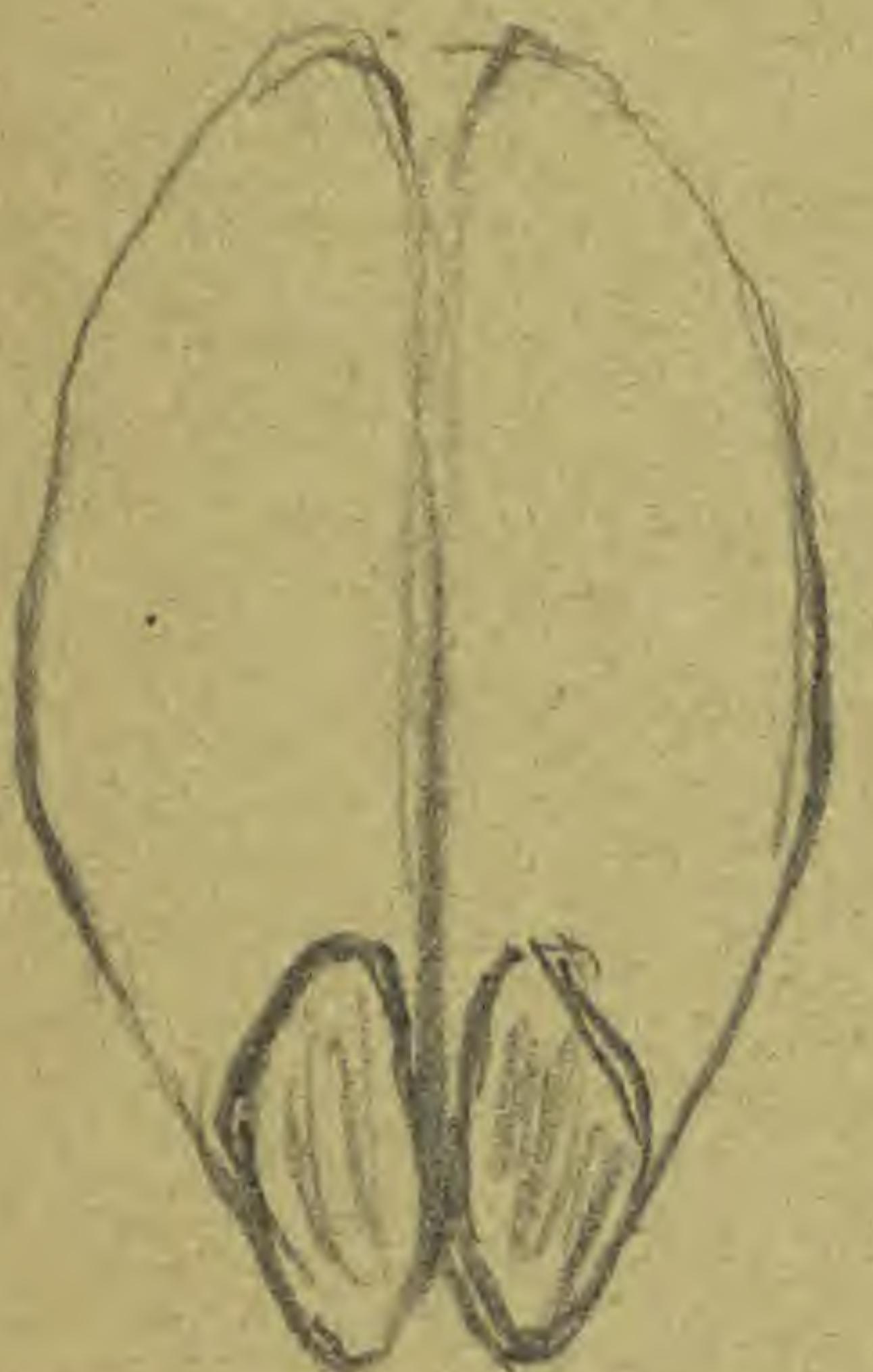
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Herb Host Bot Edib. Aug 30 1869

731 *Pinus Jeffreyi* leaves only - $\approx 3^{\frac{1}{2}}$ 20-25
cent long, slender, young sheath 3 out
old as 12-14" long
terminal bud
covered with
brown - rounded fringed scales
"large cone" - probably in Museum



seed black, 11" long rounded
ridged on lower side; with
wing 35" long; wing 16" broad
below the midrib
another seed is with wing 37" long



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P. Jeffreyi is stouter, more glaucous
than *Benthamiana*
The original species are here
- ~~Host~~ ²⁰ Bot Edel - now rapidly
now 10-15 feet high -
Benthamiana

P. Baudleijii = Bentham \rightarrow
Ponderosa ^{also} ^{100 ft} ~~100 ft~~
P. ponderosa has ^{several specimens in garden} drooping branches
but otherwise similar to Bentham
See ~~Red~~ and G. Jeffrey
Murray figures *Jeffreyi* with such drooping
branches - heavy leaves at the end
a straggling, unimposing appearance
P. Engelmanii is the same
1869, ~~Host~~ ²¹ Bot Edel



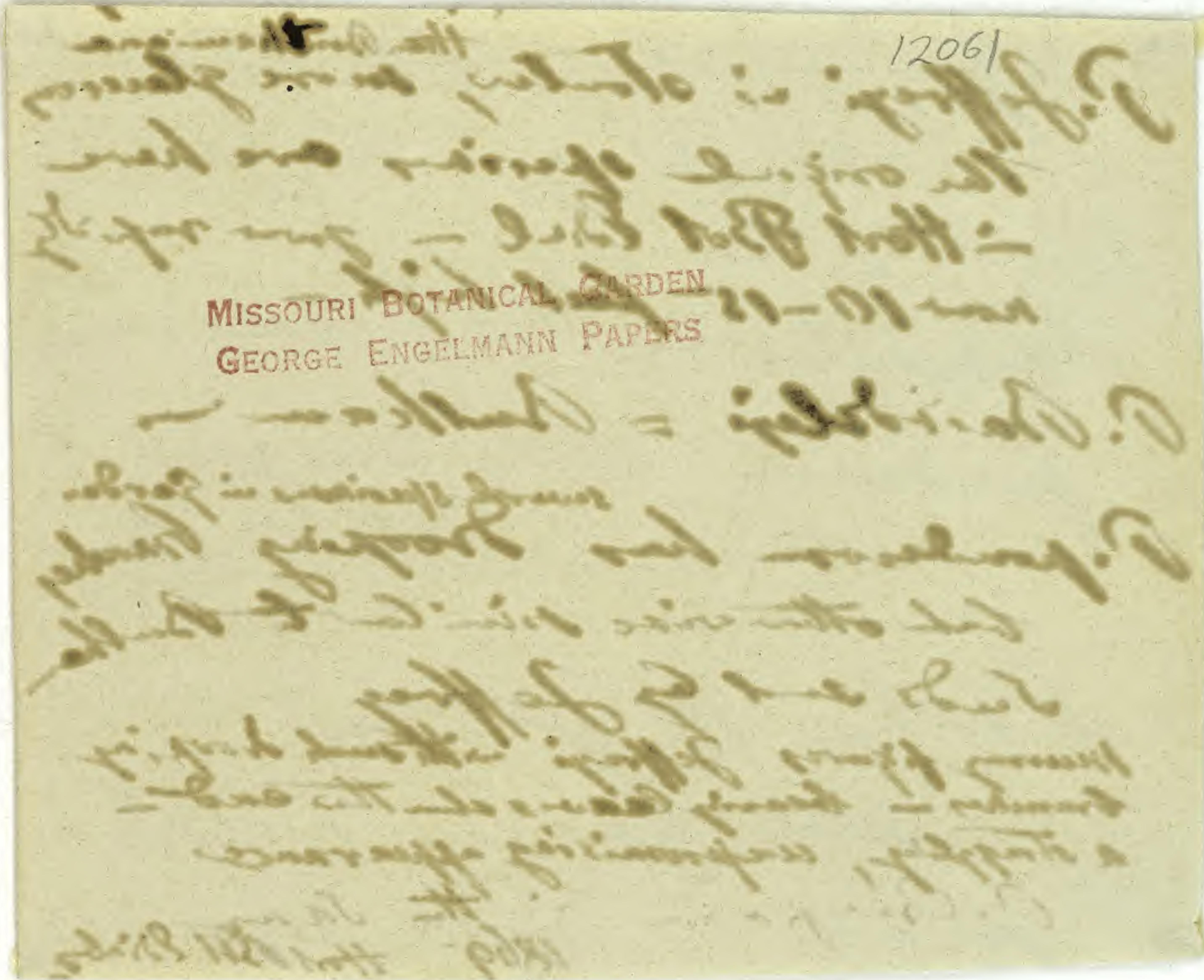
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Hb Kew Sept 7 1889

1678. Liverworts Jeffrey Sept 26 1853. is small leaved
contorta with quite mucronate scales, narrow, with round
1680 Liverworts, Jeffrey Sept 20 1853. Notes near Walker's Pass -
is the same, a little stouter leaved - ones lateral & terminal
very sparingly narrow projecting



[on different years
and all terminal?]



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Aug
1869
Kew Sept 1869

Pin. Jeffreyi, Balfour ~~in Ag. Ex. 1853~~
in Circular of Edub. Oregon
Bot. Assoc. 1853
so quoted by Murray in Lawson's Brit. Britan
part V



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J. D. Hooker Oct 1877

Letter to Gray

We have *Pinus ponderosa* and *Jeffreyi* for the first time
- fruit in Kew Gardens. *Ponderosa* with splendid bushes
of long shining green thin rather ^{pendulous} ~~flexuous~~ leaves (10" by
4 sessile rounded cones in a cluster, 2 inches long

Jeffreyi not so bushy, but tall and straight
branches leafy towards tip only; leaves same length
as ponderosa but thicker, duller green, hardly
shining, stiffer, more erect; cone also 4"
long, much broader, more ovoid, solitary,
peduncled, hardly, if at all, rounded.

Both plants agree with ^{my concept of} the Yosemite
trees, but the differences and characters
were so markedly shaken subsequently.

by finding small cones with stiff dull leaves
and ^{big} large cones with very shining leaves,
hence ^{usually smaller} ~~sessile~~ ^{rounded} cones remain
as characters for *ponderosa*; peduncled
sub-solitary spreading, large cones for *Jeffreyi*.

May plants of each - the gardens
agreeing precisely - no doubt
seedlings of same tree.

(Look to the small leaved forms &
from Colorado or Oregon!!
on Torrey's *Jeffreyi* to S. Calif.



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Geehrter Herr Doctor !

Ich habe die Herren Doctoren Schade,
Wisseler, Spiegelhalter und andere auch
gesprochen. Ich bin ein armer Krank-
licher französischer Arzt der den Kunden
wieder erreichen möchte.

Wollten Sie nicht auch
mit einer Kleinigkeit einen armen
Collegen helfen.

Ich werde Ihnen aufsch-
tzig dafür dankbar sein

Ergebend
C. D. Dertier

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Wm H Brewer - Letter to Dr. Gray March 6th

P. ponderosa a magnificient tree, often over 200 feet high - have seen it 12 feet diameter - heard of it larger. It belongs to the lower forest portion of the Sierras, that is up to about 4000 feet in the latitude of San Francisco - but lower in the northern part of the State. - Cones pendent, scales thin, bark splitting in enormous plates, sometimes 2 feet wide. It extends as far south as Lat 34 - how much farther, don't know.

P. Jeffreysii replaces P. Ponderosa at about 5000 feet - a similar tree, only more branching, cones much larger, bark splits into smaller plates. Both species seem to merge into each other, yet I think them distinct. P. Jeffreysii is very abundant and very large on the eastern slope of the Sierras and the chains east, in the desert, and will sometimes grow on soil so dry that it would seem impossible for it to get any moisture for years year together.



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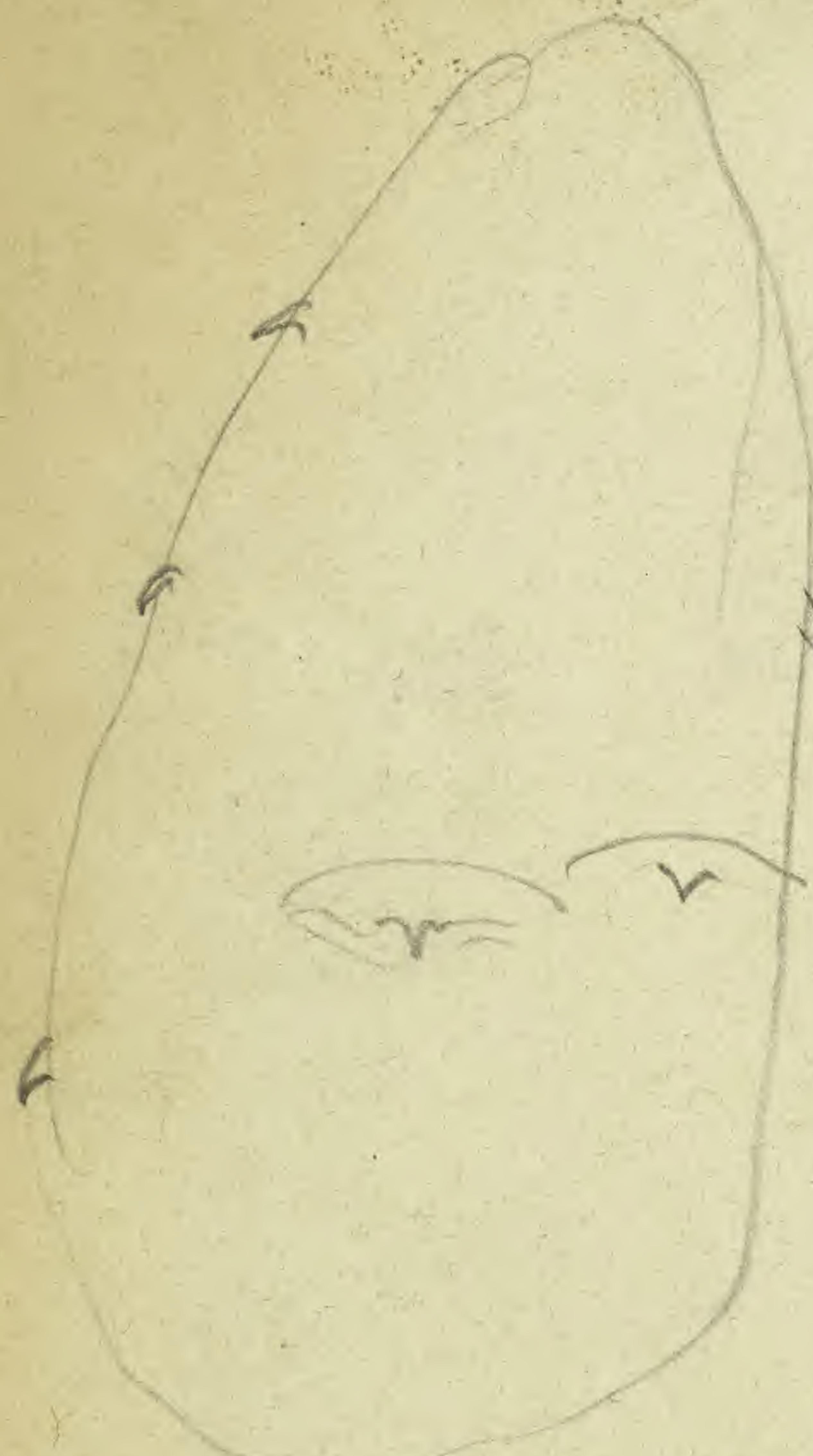
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One of *P. Benthamiana* in Mus.
Gift of H. B. Edible. - 1869

that of *P. Craigana*

and of *P. Baird'sleyi*

Baird'sleyi is not at all
at all similar, but less spiny
probably all three identical.

Edible. Aug 30 1869

P. Craigana the young tree 6-8' high,
looks much like Benthamiana



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1870. 10. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 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MISSOURI BOTANICAL GARDEN

Dr Parry Oct 27 1863 in Citt:

I have saved as 'spec' of *Pinus* *deflexa* but
consider it a well known species at the time. The
English collector Lobb called it *P. Benthamicum*, which
belongs (fide Newbey) to *P. ponderosa*.

D. Cader considers *deflexa* also = *ponderosa*



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12067

Emile Gander,
Café der Zweiten und Walnuss Straße,
unter Barnum's Hotel,
Saint Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



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